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## Developmental Expectations, Personality Stereotypes, and Attitudes Towards Inclusive Education: community and teacher views of Down syndrome

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### ABSTRACT

Knowledge about Down syndrome and attitudes towards the educational inclusion of children with Down syndrome were examined in a sample of 2,053 people from the community and a group of 538 experienced teachers. Although both groups displayed reasonably accurate knowledge about Down syndrome and its developmental consequences, they significantly underestimated the average life expectancy for a person with the syndrome. In both groups, a positive stereotype of children with Down syndrome as particularly affectionate and happy was evident. Despite recognising the educational, social, and emotional benefits of inclusive schooling, only around 20% of each group believed that the regular classroom was the best setting for children with Down syndrome. The findings suggest that accurate knowledge and positive, but realistic, expectations are important for enhancing the acceptance of individuals with disabilities within their schools and communities.

### Introduction

Today most children with an intellectual disability are being reared in family homes and an increasing number are being educated in regular classrooms with the expectation that, as adults, they will live independently or semi-independently, work in paid employment, and participate in a range of activities within their communities. Both in schools and in communities, negative attitudes or unduly pessimistic views about what people with disabilities are capable of achieving may successful inclusion. Such views may be based, at least in part, on inaccurate knowledge and misconceptions about particular disabilities (Lee & Rodda, 1994).

In a recent Australian study of community attitudes towards disability, respondents who stated that people in general feel uncomfortable when interacting with individuals with disabilities believed that this was due mainly to their lack of knowledge or understanding of disability (Disability Services Queensland, 2000). Only 17% of the sample reported that they knew a lot about intellectual disability, while 20% said they knew very little or had no knowledge at all.

Relatively few studies have explored community knowledge about disability and the relationship of knowledge to attitudes towards educational inclusion. In a study by Roth and Smith (1983) community knowledge about various types of disabilities was generally accurate and attitudes towards community living were quite positive. However, only 26% of respondents agreed that children with disabilities (including intellectual disability) should go to regular schools.

Most studies of knowledge and attitudes have focused on undergraduate students or specific groups such as special education teachers (see e.g., Duvdevany, Rimmerman, & Portowicz, 1995; Gregory, 1997; Hastings, Sjöström, & Stevenage, 1998; Horner-Johnson et al., 2002; Wilson & Mazzocco, 1993). Given their training and experience, it is likely that teachers have more accurate knowledge about disability than the general community. Nevertheless, studies of teacher attitudes towards inclusive education have generally found that, despite overall support for the concept of inclusion, the majority of teachers feel that the regular classroom is not the best option for children with disabilities (for a review, see Scruggs &

Mastropieri, 1996) and their views of inclusion become less positive with increasing years of classroom experience (Center & Ward, 1987; Forlin, Douglas, & Hattie, 1996). This may reflect age rather than experience as increased age has been shown to be associated with more conservative views about other aspects of life for those with an intellectual disability (see e.g., Murray & Minnes, 1994).

In a study of 231 trainee teachers' attitudes towards the inclusion of children with Down syndrome in the United Kingdom, Wishart and Manning (1996) found that, although most of their sample believed that regular classrooms provided educational, social, and emotional benefits for the child with Down syndrome and for other children in the class, they had reservations about having a child with Down syndrome in their own class. Their views may have been influenced by inaccurate knowledge about the disorder and pessimistic expectations about the developmental outcomes that are likely for children with Down syndrome. In general, the students displayed a low level of knowledge about the disorder and its impact on development. In particular, they significantly underestimated the lifespan of a person with Down syndrome, the ages at which particular developmental milestones are achieved, and the level of independent adult functioning that is attainable.

Such misconceptions and negative attitudes clearly have the potential to influence the success of inclusive education for children with Down syndrome, particularly if they continue to be evident in the views of more experienced teachers. Some researchers have reported that positive teacher attitudes represent the key factor in determining the success of inclusion (Bender, Vial, & Scott, 1995; Buell, Hallam, Gamel-McCormick, & Scheer, 1999). In addition, however, the views of the broader community are important for within the community are the parents of other school children, the neighbours of individuals with a disability, their friends and employers, and the voters who, by their reactions, will both directly and indirectly affect the lives of people with disabilities. Clearly, community knowledge and attitudes are important determinants of the acceptance and support that people with disabilities receive, and the opportunities that are available to them within their communities.

The aim of the present study was to extend the limited research in this area by examining knowledge about Down syndrome and attitudes towards the inclusion of children with Down syndrome in a sample from the general community and a group of experienced teachers. Specifically, the study investigated general knowledge about Down syndrome and its developmental consequences, perceptions of personality characteristics associated with the disorder, and views about the likely benefits or disadvantages of inclusive schooling for a child with Down syndrome.

## Method

### Participants

The participants comprised 2,053 members of the Australian community, most of whom lived in South-East Queensland. The community sample was reasonably representative of the Australian population in relation to occupation and education. Using the method of condensing the ASCO (Australian Standard Classification of Occupations) categories proposed by Najman and Bampton (1991), the sample was grouped into three broad occupational categories and contrasted with data for the Australian population (Australian Bureau of Statistics, 1997). Percentages corresponded for the first grouping (managerial, professional, and para-professional) but the proportions of the sample falling into the second (tradespersons, advanced and intermediate clerical, sales and service workers) and third (production and transport workers, elementary clerical, sales and service workers, labourers) groupings were, respectively, somewhat higher and lower than those for the general Australian population (see Table I). Comparisons on the basis of education showed that the percentages of the sample with high school education and tertiary study were similar to those in the Australian population. None of the community sample had experienced any significant contact with individuals with Down syndrome.

The teacher sample consisted of 538 experienced teachers. Fifty-three percent of the teachers had bachelor's degrees and 27% had some postgraduate training. Their years of teaching experience ranged from 1 to 41 ( $M=14.8, SD=9.4$ ). Just over half of the sample (51%) were primary school teachers, 11% taught in early childhood settings, and 38% were teachers at secondary schools. Thirty-two percent of teachers reported that they had some previous classroom experience with children with Down syndrome. Because teachers are a specialised group, they differed from the community in relation to gender distribution, age, and education. As shown in Table I, the teacher sample had a greater proportion of female respondents, fewer respondents in the 18 to 25 or 60+ age groups, and higher levels of education than did the community sample.

Table I. Descriptive characteristics of the sample

Characteristic	Community (n=2,053) %	Teachers (n %
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<b>Gender</b>		
Male	45	24
Female	55	76
<b>Age</b>		
18 to 25 years	22	10
26 to 40 years	34	41
41 to 60 years	38	48
60+ years	6	1
<b>Occupation a.</b>		
1	37 (35)b	
2	45 (35)b	
3	18 (30)b	
<b>Education</b>		
High school	65 (60)b	2 (1)d
Diploma	12 (22)b, c	18 (23)d
Bachelor's degree	20 (18) b	53 (49)d
Postgraduate degree	3	27 (27)d

a. Figures shown are for 1,570 participants who reported being in current employment. The remainder (n =483) were coded as student, retired, home duties, unemployed, not stated, or not adequately described.

b. Australian Bureau of Statistics (1997) figures for the Australian population.

c. Australian Bureau of Statistics data are not directly comparable with the study sample because skilled vocational qualifications were included with diploma qualifications in this ABS category.

d Australian Bureau of Statistics (1998) figures for Queensland teachers.

### Measure

The questionnaire was adapted from one used by Wishart and Manning (1996) to assess preservice teachers' knowledge of Down syndrome. It consists of 28 questions about five main areas: (a) general knowledge about Down syndrome including causal factors, developmental impact, and life expectancy, (b) knowledge about the average ages at which particular developmental milestones are achieved, (c) expectations about the likelihood of certain adult attainments such as work and marriage, (d) perceptions of the personality characteristics of those with Down syndrome, and (e) attitudes towards inclusive education for children with Down syndrome. A copy of the questionnaire can be obtained from the first author.

### Procedure

As part of the fieldwork requirements of a developmental psychology subject, questionnaires were administered by first year students enrolled in a teacher training degree at a large Australian university. Each student contacted two members of the community or two experienced teachers and asked them to complete a questionnaire about Down syndrome. A research assistant contacted a randomly selected subset of approximately 5% of the community sample (n 100) and all confirmed that the interviews had been conducted in accordance with the required procedures.

## **Results**

### General Knowledge About Down Syndrome

In general, teachers displayed more accurate general knowledge about Down syndrome than did the community. For instance, 85% of the community and 94% of teachers knew that Down syndrome is a chromosome disorder,  $X(1)=31.59$ ,  $p<.001$ . Although 77% of the community and 89% of teachers recognised that it occurs more frequently in older parents, within the community sample there were a number of misconceptions about the factors associated with Down syndrome. For instance, 26% believed that the disorder could be caused by problems arising during birth, 11% thought that parent lifestyle was to blame, and 8% reported that emotional shock to the mother during pregnancy was responsible. These misconceptions were much less evident in the teacher sample.

### Developmental Expectations

The average life expectancy of a person with Down syndrome was significantly underestimated by many respondents in both groups. Forty-four percent of the community and 42% of teachers estimated life expectancy as 30 years or less. However, beliefs about the ages at which children with Down syndrome attain basic developmental milestones were reasonably accurate. For instance, the majority recognised that children with Down syndrome typically are toilet trained, begin walking, and understand simple language in the preschool years.

Quite optimistic views were expressed about adult attainments (see Table II). Around 40% felt that it was likely or very likely that individuals with Down syndrome could live and work independently. Relationships with the opposite sex were seen as likely or very likely by more than half the respondents in each group, and more than a third believed that marriage was likely or very likely.

In order to obtain scores that reflected the overall extent to which respondents viewed developmental outcomes positively rather than pessimistically, total scores were calculated for developmental milestones and adult attainments. These totals were obtained by adding together the scores from the individual 5-point scales (ranging from 1= acquired during the preschool years to 5= never acquired for developmental milestones and 1=very likely to 5=very unlikely for each adult attainment). Lower scores thus represented more optimistic views about developmental outcomes, while higher scores were more pessimistic. Using an independent samples t-test, there were significant group differences for both variables, with teachers holding more positive views about developmental outcomes,  $t(851.612) = 5.62, p < .001$  and adult attainments,  $t(2566) = 2.94, p < .01$  than members of the general community.

TABLE II. Percentages of each group rating adult attainments as likely/very likely, possible, or unlikely/very unlikely to be achieved by a person with Down syndrome

	Likely/very Likely		Possible		Unlikely/very unlikely	
	C	T	C	T	C	T
<b>Adult attainment</b>						
Independent living skills	42	46	42 42	45	16	9
Relationships with opposite sex	51	57	39 39	38	10	5
Marriage	39	41	41 41	41	20	18
Working independently in paid employment	39	42	44 44	45	17	13
 Caring for own finances	 24	 24	 46 46	 51	 30	 25

C=Community, T=Teachers

### Personality Stereotypes

The views of the community and also of teachers reflected a stereotype of children with Down syndrome as exceptionally happy and affectionate. When asked to consider a list of 12 personality characteristics drawn from the literature on stereotypes associated with Down syndrome, 79% of the community sample and 85% of teachers said that children with Down syndrome are more affectionate than other children. In both groups around 80% believed that they are friendlier while 70% said they are happier. Teachers associated a significantly greater number of positive characteristics (for instance, friendliness, happiness, and placidity) and fewer negative characteristics (e.g., aggressiveness, unresponsiveness, and inattentiveness) with Down syndrome than did the community,  $t(785.44) = 2.93, p < .01$  and  $t(802.19) = 3.41, p < .01$ , respectively.

When asked which single characteristic they believed to be the most typical of children with Down syndrome, the majority (80%) nominated one of the 12 listed personality characteristics while 20% chose the "other" category and nominated features such as physical appearance. Of the respondents who chose one of the listed characteristics, the largest proportions in both groups chose affectionate (40% community and 52% teachers). As shown in Table III, the only other personality features that were identified by more than 10% of each group were happy and friendly. Significantly more teachers rated the defining characteristic as a positive one (85% of teachers compared with 78% of the community,  $\chi^2(1) = 9.73, p < .01$ ) and significantly more females than males nominated a positive characteristic (86% of females compared with 68% of males,  $\chi^2(1) = 77.14, p < .001$ ).

TABLE III. Percentages of each group choosing each personality characteristic as the most typical of

children with Down syndrome

Personality characteristic	Community	Teachers
Affectionate	40	52
Aggressive	2	1
Placid	5	4
Solitary	4	2
Stubborn	3	6
Trusting	5	2
Moody	7	3
Musical	1	1
Happy	14	11
Unresponsive	2	0
Friendly	13	15
Inattentive	4	3

#### Attitudes towards Inclusive Education

The majority of respondents in both groups reported that there were educational, social, and emotional benefits in inclusion for the child with Down syndrome, and also for other children in the classroom (see Table IV). When the benefits were totalled by adding together the ratings from the 4-point scale for each benefit, teachers recognised greater benefits, both for the child with Down syndrome,  $t(2564)=4.46$ ,  $p<.001$  and for the other children in the class,  $t(2545)=3.20$ ,  $p<.01$  than did the community. There were no significant differences according to age or years of teaching experience, but amongst the teachers, those who reported having had classroom contact with a child with Down syndrome rated the benefits of inclusion more highly than other teachers, both for the child with Down syndrome,  $t(528)=5.32$ ,  $p<.001$  and also for the other children,  $t(552)=2.90$ ,  $p<.01$ .

TABLE IV. Percentages of each sample who reported "very beneficial" or "somewhat beneficial" effects of inclusive education

Effect	For the child with Down syndrome		For other children in the classroom	
	Community	Teachers	Community	Teachers
Educational	70	78	68	68
Social	81	91	91	97
Emotional	68	79	87	94

TABLE V. Classroom setting in which respondents believed the average child with Down syndrome would do better

Classroom setting	Community %	Teachers %
Regular primary classroom with children of the same age	19	24
Regular primary classroom with younger children of a similar developmental level	36	22
Separate school for children with special needs	37	28
Some other setting (such as a combination of the above)	8	26

Despite these positive perceptions of the benefits of inclusive schooling, only around 20% of each sample saw education in a regular classroom setting with same-age peers as the best option. As shown in Table V, 37% of the community sample and 28% of the teachers believed that children with Down syndrome should be educated in separate schools for children with special needs. The remainder chose other alternatives such as placement in regular classrooms with younger children of a similar developmental level or a combination of settings. In the community sample, choice of classroom setting differed according to gender,  $\chi^2(3)=20.36$ ,  $p<.001$  with males being more likely to choose the special school option than females (42% compared to 33% of females). Gender was not a significant factor in teachers' choice of the best classroom setting for children with Down syndrome.

There was a significant difference in teachers' choices of the optimum classroom setting according to whether or not they had previous classroom experience with a child with Down syndrome,  $\chi^2(3)=13.44$ ,  $p<.01$ . Amongst those who reported having having taught a child with Down syndrome, 33% believed that

regular classrooms were the best educational option for children with Down syndrome, while only 20% of the teachers without previous contact saw inclusive classrooms as the best choice. There was also a significant difference according to levels of teaching,  $\chi^2(6)=15.38$ ,  $p<.05$ . Early childhood teachers were more likely to choose the regular classroom option (34%) compared with only 24% of primary teachers and 22% of secondary teachers.

In both groups, there were differences in choice of educational setting related to the respondents' level of education,  $\chi^2(15)=39.61$ ,  $p<.01$  in the community sample and  $\chi^2(9)=19.11$ ,  $p<.05$  in the teachers, with those with higher level of education being less likely to choose the special school option. Choices did not differ according to age or length of teaching experience.

In the community, those who chose the regular classroom held more positive expectations for developmental milestones,  $\chi^2(93)=192.55$ ,  $p<.001$  and adult attainments,  $\chi^2(972)=190.09$ ,  $p<.001$ . The only other significant difference between teachers who chose teachers who chose the most inclusive schooling option and other teachers was their expectations for adult achievements,  $\chi^2(66)=104.46$ ,  $p<.01$ . Teachers who held more optimistic adult expectations were more likely to choose the regular classroom setting.

## Discussion

Overall, both the community and the teachers demonstrated reasonably accurate knowledge about Down syndrome and, not surprisingly, teachers had more accurate knowledge. There were, however, some significant misconceptions about the factors associated with Down syndrome, most noticeably in the community sample where up to 26% of respondents incorrectly believed that the disorder could be attributed to factors such as parent lifestyle and problems during birth.

Rather than being unduly pessimistic, developmental expectations tended to be quite positive, particularly about the levels of adult attainment that are likely for a person with Down syndrome. This finding contrasts with Wishart and Manning's (1996) study which found that many preservice teachers underestimated the typical ages at which children with Down syndrome achieve many basic developmental milestones and the likelihood of their attaining particular adult achievements.

It is possible that the increased presence of individuals with Down syndrome in schools and communities in recent years has led to more realistic knowledge about developmental milestones and more positive perceptions about likely adult achievements. It is surprising though that increased knowledge has not extended to information about life expectancy. A large proportion of respondents (44% of the community and 42% of teachers) did not expect a person with Down syndrome to live beyond 30 years, and teachers (even those with prior experience of teaching children with Down syndrome) did not have better knowledge than the community in this respect. These figures show some improvement from the 56% reported by Wishart and Manning (1996) in this category, but nevertheless, as Wishart and Manning point out, there are disturbing implications for the value that is likely to be placed on education for those with Down syndrome and on skills for adult life such as vocational training and sexuality education. If the expectation is that a person is unlikely to live beyond the early adulthood years, long term goals may be neglected. Independent living skills might not be seen as a priority when individuals with Down syndrome are not expected to outlive their parents, for example, and less effort may be invested in encouraging and supporting the development of self-determination and its necessary subskills.

The stereotype of children with Down syndrome as particularly affectionate and happy was very evident in both samples. Seventy-nine percent of the community and 85% of teachers agreed that the average child with Down syndrome is more affectionate than others, compared with nearly 95% in Wishart and Manning's (1996) study. Although many people believed that children with Down syndrome also typically display a number of negative behaviours, these adjectives were checked by a lower proportion of the sample and, when asked about the single personality characteristic which typifies children with Down syndrome, the majority nominated a positive one. Very few respondents acknowledged the individuality of children with Down syndrome, nor the fact that, in general, they display the same range of characteristics as children who are developing typically (Gunn & Cuskelly, 1991; Robison, 2000). While this well-established positive stereotype may benefit children with Down syndrome at times, perhaps by enhancing their initial acceptance within a setting, such stereotypes neglect the considerable variation in personality characteristics amongst individuals and also the variability in mood and behaviour within a single individual. The danger is that stereotypes set up particular expectations which, if unmet, may result in a mismatch which could undermine effective inclusion. For instance, if teachers' expectations are that children with Down syndrome are typically happy and affectionate, they may find it more difficult to cope with a child who does not fit their preconceived ideas about how a child with this disorder should behave. Unfortunately, stereotypes tend to lead people to focus more on the syndrome than on the uniqueness of each individual child.

A large proportion of those in both groups recognised the educational, social, and emotional benefits of inclusion not only for the child with Down syndrome, but also for the other children in the class. In fact, the social and emotional benefits were rated more highly for the other children. Such views may reflect a perception that non-disabled children learn important qualities such as tolerance and an appreciation of diversity from their contact with peers with a disability.

Despite these positive views about the benefits of inclusion, respondents often still believed that the needs of students with Down syndrome could best be met in segregated settings. This apparent anomaly may be due to a perceived lack of support and resources for teaching children with special needs in regular classrooms, a factor which appeared to explain the similar findings in Wishart and Manning's (1996) study. Interestingly, the proportion of the present sample who believed children should be educated in regular classrooms was no higher than the 26% who held this view 20 years ago in Roth and Smith's (1983) study of community attitudes towards disability.

Those in the community who supported the regular classroom option for children with Down syndrome had fewer negative stereotypes about Down syndrome and more positive expectations about developmental outcomes. These findings suggest the importance of combating negative stereotypes (although in doing so, care must be taken not to reinforce other stereotypes) and providing realistic information about developmental potential if we are to increase community support for inclusiveness.

It is encouraging to find that, as a group, teachers recognised more benefits in inclusion and rated fewer negative stereotypes of Down syndrome than did the community, and that those with previous experience of teaching a child with Down syndrome were more positive about inclusive schooling. Consistent with previous research (Bender et al., 1995), teachers with higher levels of education (i.e., tertiary degrees and postgraduate qualifications) had more positive views about inclusion, perhaps because their additional training had provided them with more knowledge about disabilities or an increased confidence in their own ability to cope within inclusive classrooms.

The fact that more early childhood teachers chose the regular classroom for a child with Down syndrome probably reflects the greater ease with which children with disabilities are integrated in early childhood settings. Early childhood classrooms are less demanding academically and the cognitive differences between children with Down syndrome and their peers are usually not as great at this age as in later stages of schooling (Wishart, 1996). In addition, it is possible that early childhood teachers are more positive about inclusive schooling because their training tends to focus more on developmental issues, than does teacher education at primary and secondary levels.

There are a number of limitations to the current research. The first involves the validity of questionnaire measures of community attitudes. As Kastner, Reppucci, and Pezzoli (1979) have pointed out, disability surveys often involve questions of fundamental human rights which elicit responses that are positively biased in politically or socially correct ways. In addition, respondents in the current study were known personally to their interviewers, a fact that may have biased their responses towards more socially acceptable choices. In particular, teachers may have seen their role as models for the preservice teachers who interviewed them, consequently perhaps responding in ways that were overly positive about disability or overly supportive of inclusive schooling which is current educational policy in the state of Queensland.

Even if questionnaire measures are assumed to be an accurate reflection of attitudes, they do not provide information about the extent to which attitudes are translated into actual behaviours. Clearly, there is a need to develop more innovative ways of measuring community reactions to disability. The method used by Kastner et al. (1979) in which researchers studied the responses of residents who were led to believe that a nearby house might be used as a group home for individuals with an intellectual disability provides an example of more naturalistic measurement of attitudes.

It is not possible to draw any conclusions from the present study about teacher and community knowledge and attitudes towards disability generally. Down syndrome is a relatively well-known disability which is associated with a stereotype of positive behavioural characteristics. For some disabilities, there are undoubtedly many misconceptions based on inaccurate knowledge and, as a result, attitudes towards school and community inclusion for individuals with these disabilities may be less positive. The challenge is to develop ways of educating teachers and the community so that they develop a better understanding of various types of disabilities which will enhance their acceptance of, and support for, individuals with a disability in their schools and communities.

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